

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned application:

Listing of Claims

1. (Currently Amended) A device for handling a liquid sample, said device comprising:
 - at least one flow path;
 - at least one zone for receiving the liquid sample;
 - a transport or incubation zone; and
 - at least one sink disposed in a distal end of said device relative to said at least one zone for receiving the liquid sample, said sink comprising an area having projections substantially vertical to its surface, said projections configured having a height and spacing to achieve a capillary flow therethrough; and
 - means for controlling and thereby support or control the flow rate of said liquid sample laterally through said transport or incubation zone, wherein said means are applied to said at least one sink, said at least one flow path consisting of said projections extending between said at least one receiving zone and said transport or incubation zone to said sink, creating capillary flow without enclosing said device.
2. (Previously Presented) The device according to claim 1, wherein:
 - said at least one flow path is two or more flow paths;
 - said at least one sink is two or more sinks;
 - each flow path of said two or more flow paths is connected to a sink of said two or more sinks; and
 - said device is adapted to perform multiple analyses on one liquid sample.

3. (Withdrawn) The device according to claim 1, wherein
 - said at least one flow path is two or more flow paths;
 - said at least one sink is one sink;
 - each flow path of said two or more flow paths is connected to said one sink;
 - and,
 - said device is adapted for performing multiple analyses on one liquid sample.
4. (Previously Presented) The device according to claim 2, wherein said multiple analyses are performed in parallel.
5. (Withdrawn) The device according to claim 3, wherein said multiple analyses are performed in parallel.
6. (Previously Presented) The device according to claim 1, wherein said at least one flow path is adapted to accept a serial addition of multiple compositions.
7. (Previously Presented) The device according to claim 1, wherein said at least one sink is adapted to response to an external influence to regulate the flow rate of said liquid sample through said transport or incubation zone.
8. (Previously Presented) The device according to claim 7, wherein said external influence is selected from the group consisting of heating, cooling, irradiation with visible light, infrared irradiation, vibration, and the application of an electronic current.
9. (Previously Presented) The device according to claim 8, wherein said at least one sink is adapted for division into sub-sections, said sub-sections adapted to being serially subjected to said external influence.

10. (Previously Presented) The device according to claim 1, wherein said at least one sink, or a sub-section thereof, is capable of being heated to evaporate said liquid sample therefrom.
11. (Previously Presented) The device according to claim 1, wherein said at least one flow path is in fluid connection with said at least one sink and wherein said at least one flow path is selected from the group of flow paths consisting of a flow path formed as a capillary groove, a flow path formed as an open channel, a flow path formed as a closed capillary, a flow path formed as a tortuous path through a fibrous material, and a flow path formed as a tortuous path through a gel-like material.
12. (Previously Presented) The device according to claim 1, wherein said at least one flow path is in fluid connection with said at least one sink, and wherein said at least one flow path comprises areas having substantially vertical projections.
13. (Previously Presented) The device according to claim 12, wherein said vertical projections have different cross sections in different zones of said at least one flow path.
14. (Previously Presented) The device according to claim 1, wherein said device further comprises a design feature to prevent back flow of said liquid sample.
15. (Withdrawn) A method of performing a chemical or biochemical assay involving a reaction between an analyte in a sample and one or more reagents, said method comprising:
 - adding a sample to the device of claim 1 and
 - reacting said sample with one or more reagents.

16. (Withdrawn) A method of performing a chemical or biochemical assay involving a reaction between an analyte in a sample and one or more reagents, said method comprising:
reacting a sample with one or more reagents on the device of claim 1.
17. (Withdrawn) A method for handling liquid samples, the method comprising adding said samples to the device of claim 1.
18. (Withdrawn) A method of pre-treating a liquid sample, prior to performing a chemical or biochemical assay, the method comprising using the device of claim 1.
19. (Previously Presented) The device according to claim 14, wherein said design feature is a set of vertical projections having different cross sections in different zones of said at least one flow path or an external influence, wherein said external influence is selected from the group consisting of heating, cooling, irradiation with visible light, infrared irradiation, vibration, and application of an electric current.
20. (Previously Presented) The device of claim 1, wherein said projections have a configuration selected from the group consisting of: height, diameter, and reciprocal spacing.
21. (New) A device for handling a liquid sample, said device comprising:
a substrate having at least capillary flow zone, said at least one capillary flow zone consisting of at least one plurality of projections extending vertically from a support surface of said substrate and configured to induce lateral capillary flow of an introduced liquid sample along at least one flow path;
a reaction or incubation zone defined on said substrate in relation to said at least one capillary flow zone and having material disposed therein for reacting with said liquid sample;

a zone defined on said substrate for receiving said liquid sample, said receiving zone being disposed in relation to said at least one capillary flow zone and said reaction or incubation zone for producing an initial lateral capillary flow of said liquid sample; and

means for controlling the flow rate of said liquid sample laterally across said substrate, including across said incubation or reaction zone wherein said device produces capillary flow without requiring said at least one flow path to be enclosed.

22. (New) The assay device of Claim 21, wherein the flow of said liquid sample from said receiving zone over said capillary flow zone, including over said reaction or incubation zone, is continuous.
23. (New) The assay device of Claim 21, wherein said flow rate controlling means are applied distally in relation to said reaction or incubation zone.